- As technologies evolve, the services that can be supported by each will continue to differ. Connection speeds, bundled services, call management services, etc. are likely to be different for wireless and landline technologies.

If "competitive neutrality" is applied to these technologies, then they should be equalized in all dimensions, not only the access to high cost support. The substitutability of wireless and wireline services in rural areas is largely a fiction. There is mounting evidence that wireless *minutes* are being substituted for landline *minutes*. This is different than evidence that wireless *service* is substitutable for landline *service*. There is some evidence that wireless services have a modest degree of substitution for 2nd lines, but little evidence that there is significant substitution for primary lines.[13]

This is not to say that wireless services are necessarily adequate in rural areas. Whether or not there should be a support mechanism for wireless services in rural areas is a separate public policy question – one that must recognize the myriad differences in services offered, service quality, regulatory constraints, and service provider costs. At a minimum, any use of the USF by wireless ETCs must be based on their own cost structure and not the ILECs.

[13] The best evidence to date can be found in G.A. Woroch, M. Rodini, and M. Ward, "Going Mobile: Substitutability between Fixed and Mobile Access," forthcoming in *Telecommunications Policy*, 2003. This study, exclusively focused on substitution in access, finds moderate substitutability between mobile service and 2nd lines and very little substitutability for primary lines. Notably, the study did not have a geographic dimension in the data, so it is not possible to differentiate between rural and urban areas. The FCC Eighth CMRS Competition Report also notes the difference between substitution in usage and substitution in access.

The current rules on support for transferred exchanges should also be changed. Rural areas would be well served by permitting recalculation of support, based on the acquiring company's study area and without any time lag.

The FCC's rules do not permit high cost support to be calculated on the basis of the acquiring company's study area. Instead, the acquiring company's support is limited by the per line level of the selling company. Increased support is permitted upon further investment, but this is capped and subject to a time lag. Thus, when a rural exchange is sold from a large ILEC to a small one, the high cost support does not increase to fully reflect the cost of serving the acquired exchange or to adequately reflect increased investments that would be made after acquisition.[14] Thus, part of the lack of competitive neutrality between large and small ILECs is exported to the acquiring company. Rural America would be better served if this constraint were dropped and the incentives for acquisition of high cost exchanges by rural ILECs were enhanced.

APPENDIX

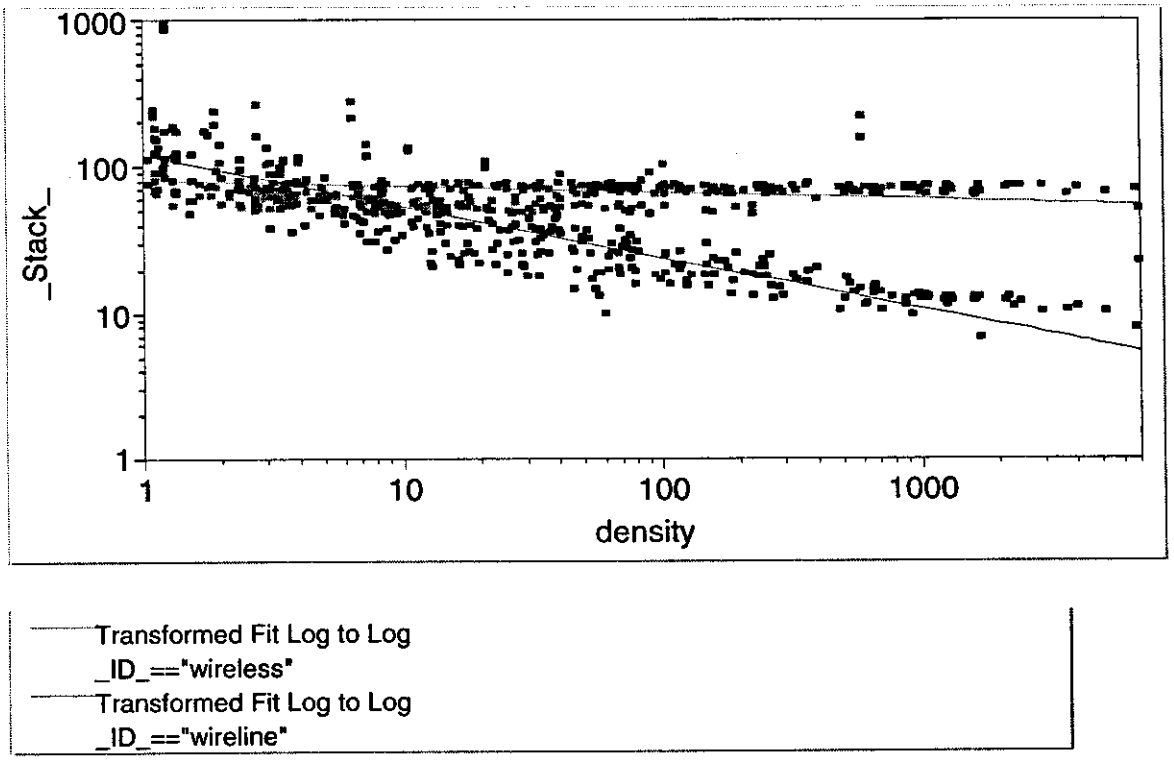
The only available evidence on wireless cost structures is contained in the Hatfield wireless cost model that was submitted to the FCC several years ago.[15] The model computes wireline and wireless costs by wire center. I ran the model for Washington

[14] The so-called mergers and acquisitions cap was modified in 2001 with the FCC's adoption of "safety valve" support. Safety valve support is provided to rural carriers for up to 50 percent of any positive difference between the rural ILEC's index year expense adjustment for the acquired exchanges and subsequent year expense adjustments. However, total safety valve support available to all eligible study areas is limited to no more than five percent of rural ILEC support available from the annual high-cost loop fund. *See, Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Fourteenth Report and Order, Twenty-Second Order on Reconsideration, and Further Notice of Proposed Rulemaking, *Multi-Association Group (MAG) Plan for Regulation of Interstate Service of Non-Price Cap Incumbent Local Exchange Carriers*, CC Docket No. 00-256, Report and Order, 16 FCC Rcd 11244, 11285, para. 98 (2001). *See also*, 47 C.F.R. §54.305.

[15] Western Wireless *ex parte* presentations, CC Docket No. 96-45, August 26, 1998.

State and plotted the monthly costs for wireline and wireless service by the population density of the wire center (actually households per square mile). The graph below shows the results, with a straight line fit through the logarithms of costs and densities (the relationship was clearly curved, so the logarithmic transformation was much better than just fitting a straight line through the data).

Monthly Wireline and Wireless Costs by Population Density: WA wire centers



Several things are evident from the graph and associated statistics. First, density is a better predictor of wireline costs than wireless costs. Second, density has a more significant impact (negative) on wireline costs than on wireless costs. Third, the "high cost" wireless "wire centers" tend to be the more densely populated areas (except for exceptionally low densities: $<1/mi^2$). Other states show similar results (qualitatively).

Lee L. Selwyn

President and founder of Economics and Technology, Inc., Lee Selwyn is an internationally recognized authority on telecommunications economics, regulation, and public policy. Since founding ETI in 1972, Dr. Selwyn has formulated numerous policy recommendations and regulatory devices that have been widely embraced by policymakers at all levels. He has provided expert testimony and analysis on technology, rate design, service cost analysis, market structure, form of regulation, and numerous other telecommunications policy issues before more than forty state commissions, the FCC, the United States Congress and a number of foreign regulatory bodies on behalf of commercial organizations, institutions, and local, state and federal government authorities. Dr. Selwyn regularly speaks on telecom policy at government and industry conferences worldwide, and has published dozens of articles on telecommunications industry issues. [Ph.D. in Management, Alfred P. Sloan School of Management, Massachusetts Institute of Technology; Master of Science in Industrial Management, MIT; B.A. with Honors in Economics, Queens College, City University of New York.]

Summary of Testimony of Dr. Lee L. Selwyn
Economics and Technology, Inc.

Presented On Behalf of Western Wireless Corp.
Federal-State Joint Board on Universal Service – CC Docket No. 96-45
En Banc Hearing on High-Cost Universal Service Support in Areas Served by Rural Carriers
Nashville, TN – November 17, 2004

OVERVIEW

The universal service provisions at Section 254(b)(3) of the Telecommunications Act of 1996 are aimed at assuring that "Consumers in all regions of the Nation, including low-income consumers and those in rural, insular, and high cost areas" will "have access to telecommunications and information services . . . that are reasonably comparable to those services provided in urban areas and that are available at rates that are reasonably comparable to rates charged for similar services in urban areas." Note the Act's focus upon *consumers* – not on *providers*. At the present time, the *mechanics* of the high-cost funding arrangement are structured so as to flow support funds to *providers* who are then expected to use these funds to bring prices for services in high-cost areas down to the "affordable" level. However, at bottom, providers have no particular *entitlement* to such support except to the extent that it works to achieve the statutory *consumer-oriented* goals. For this reason, it is essential that existing distinctions between "small rural ILECs" and other providers of service in high-cost areas be examined in the context of how the statutory goals of universal service can be achieved most efficiently and in a manner that encourages and facilitates the *overarching* goal of the 1996 Act – "To promote competition and reduce regulation in order to secure lower prices and higher quality services for American telecommunications consumers and encourage the rapid deployment of new telecommunications technologies." Consumers are best served by a funding mechanism that encourages efficiency and that encourages and facilitates competition wherever feasible. Funding mechanisms that focus primarily upon protecting the parochial interests of certain incumbent carriers – and that operate to reward and encourage *inefficient* conduct, disserve consumers and conflict with Congressional goals and policy.

Today's hodge-podge of rural high-cost universal service funds is based largely upon rate-of-return regulation, which impedes efficiency, obstructs competition, and facilitates waste, abuse, and improper overallocation of cost to regulated services. As such, rate of return regulation disserves *all* consumers – rural and urban. The time is right to reform universal service based upon today's telecommunications marketplace and eliminate those regulations that serve to retard and jeopardize, rather than preserve and advance, universal service. The answer does not lie in trying to develop a new, separate set of rules for funding CETCs, while allowing the ILECs to continue to operate under a monopoly-inspired form of regulation, *e.g.*, guaranteed rate of return on embedded costs, regardless of efficiency and effectiveness in serving rural areas. Instead, the Joint Board and the Commission should take this opportunity to replace the existing, non-functional system with a new, competitively-neutral system for funding *all* "rural carriers" – including rural ILECs, larger ILECs that serve rural areas, rural wireless carriers (like Western Wireless) and other CETCs. With this summary and with additional materials to be distributed on November 17th, I will make the case for a structural and equitable overhaul of the current regimes, the sum of which will benefit consumers and ratepayers.

PANEL 1

There is no substance behind the facile slogan that "*one size does not fit all.*" In the universal service funding context, maintaining different funding systems for different sizes or types of carriers violates competitive and technological neutrality, undermines competition, and harms consumers. A new rural high-cost support mechanism based on forward-looking economic costs would be the best way to develop a *unified* system that advances the interests of *consumers* in rural areas and best advances economic efficiency and competitive neutrality.

Most critically, the Joint Board and the Commission need to keep in mind that "[t]he purpose of universal service is to benefit the customer, not the carrier." Providing portable, competitively neutral high-cost support funding to competitive entrants does *not* artificially "create competition." Rather, it removes an artificial barrier to competition that was imposed by the pre-existing, monopoly-oriented universal service regime. The Telecommunications Act of 1996 is rooted on the proposition that competition is the most effective means to motivate service providers to bring *benefits to consumers* such as lower prices and technological innovation that drives reduced costs and improved services – and that is exactly what is happening today in rural markets.

A. *Key Issues*: What universal service support mechanism should succeed the Rural Task Force plan? Should rural carriers receive support based on forward-looking economic costs or should support continue to be based on embedded costs?

Rather than establishing a separate, new universal service mechanism for CETCs or considering minor tweaks to the rural ILEC funding rules, the Joint Board and the Commission should overhaul the system to be consistent, logical, and "unified" for all carriers serving similarly situated areas. The Commission is seeking to move toward a "unified intercarrier compensation regime." The need for unified, consistent rules applies with even greater force to high-cost universal service funding policy. The Commission and the Joint Board

have long recognized the need for a "comprehensive review of the rural and non-rural funding systems and the need to "harmonize" the divergent systems. The time has now arrived to develop such a harmonized system, in time to be implemented in 2006 upon the expiration of the Rural Task Force plan. It makes no sense to maintain totally different funding systems that vary depending on the technology used by a carrier, the size of the carrier, or the regulatory history of the carrier, even when they provide service to the same (or similarly situated) customers.

The existing rural high-cost mechanism, based on the RLECs' embedded cost and targeted to guarantee those carriers a specified rate of return ("ROR"), is fatally flawed. First, the system of ROR regulation was designed for a monopoly industry environment and imposed extensive reporting requirements upon the regulated carriers and correspondingly detailed monitoring requirements on the part of regulators. ROR regulation has no place in the current environment of limited regulation and local competition, where "cost-plus" ROR regulation of the incumbent effectively insulates it from all competitive risk, while subjecting rivals – CETCs in this case – to the full range of competitive risks typical of any competitive enterprise. The ROR system targets RLECs' access rates and high-cost support to achieve a guaranteed return on investment on all historical costs incurred, while RLECs' emerging ETC competitors receive funding only on a per-line basis for those lines actually being served. Unlike incumbent carriers, competitive entrants' investments are at risk. Also, ROR regulation's reliance upon the RLECs' historical costs conflicts with the fact, long-recognized by the Commission and recently affirmed by the Supreme Court, that forward-looking costs are the only true measure of the factors that drive economic decision-making. And there is little logic to the complex and arcane formulae used to determine the amounts of HCL, LSS, ICLS, and IAS funding received by rural ILECs and CETCs competing with them.

Second, as the Commission has repeatedly recognized, ROR regulation interferes with incentives for carriers to operate efficiently, deploy new technologies, and reduce their operating costs. It makes no sense to retain a system that rewards carriers for operating inefficiently and discourages them from introducing technological innovations. The ROR system, which rewards carriers for being small and inefficient and which works to incent larger and more efficient carriers to divest smaller exchanges to "small, rural ILECs," also creates artificial and inefficient incentives for RLECs to remain as small as possible, and for larger ILECs to sell exchanges to smaller carriers, even if it would be economically efficient for RLECs to combine or for larger carriers to operate those exchanges.

Third, ROR regulation is the true cause for the growth of the high-cost universal service fund, which threatens the long-term viability of the fund. Recently released data confirm that dramatic increases in funding to *ILECs* – not funding to CETCs – are the principal cause of fund growth: CETCs continue to receive only a small minority of high-cost funding – about 7.1% in 2004 – and the $1.5 Billion increase in high-cost funding to ILECs represents 86% of the total high-cost fund growth over the past five years. (It should be noted that examination of percentage growth rates in CETC funding is not a useful measure, since CETCs only very recently began to receive funding. Even relatively small funding increases may appear large in percentage terms when divided by zero, or when divided by the very small numbers representing the amounts of funding that CETCs received in the past.)

My firm, ETI, recently conducted an economic analysis of the ROR-based universal service funding system. In "Lost in Translation," we found that the system enables some rural ILECs to incur excessively high "corporate operations" overhead costs and to reap large universal service payments as a result. It also systematically drives rural ILECs to forego

opportunities to obtain increased economies of scale, and enables numerous rural ILECs to earn rates of return far in excess of the authorized level. I have attached a copy of the executive summary of that study to this testimony. Moreover, the almost complete lack of independent oversight over the RLECs' cost reporting, combined with legal restrictions on the Commission's ability to require refunds or other remedies if and when it detects ROR over-earnings, leave the public exposed to a very serious risk of fraud, waste, cost misallocation, and abuse. In this "era of corporate governance problems and accounting depredations," this risk should be unacceptable.

By contrast, a rural support mechanism that bases support on forward-looking economic cost estimates more efficiently and effectively achieves the Act's goals than the embedded cost-based mechanism; provides appropriate incentives for investment, innovation, and entry into the marketplace; and more effectively achieves competitive and technological neutrality. A forward-looking cost-based mechanism also provides stronger incentives for innovation, including investment in broadband and advanced services.

The use of forward-looking costs as the standard for universal service payments is appropriate regardless of whether or not there are competitors in rural service areas. Small rural ILECs should not be the only entities that are exempt from this treatment. The fundamental goal of economic regulation of incumbent service providers who remain dominant in their markets (*i.e.*, retain market power) is to emulate the conditions that would exist in a competitive market. Participants in a fully competitive market must constantly innovate and find new ways to produce more and/or better services and products, at lower cost, in order to survive. Similarly, basing universal service payouts on forward-looking costs should stimulate rural carriers – incumbents and new entrants alike – to provide their services in a least-cost, efficient manner.

Local service markets throughout America, including those in rural areas of the country, were not opened to competitors for the benefit of those competitors, but so that American telecommunications customers ultimately could enjoy the benefits of competition, *i.e.*, lower prices and better service.

B. If support is based on forward-looking economic costs, should the Commission use a new model, or should the synthesis model or its inputs be modified to apply to rural carriers?

The Joint Board should consider several different options for how to develop a market-based, efficient funding mechanism based upon forward-looking economic costs:

(1) use of the Synthesis Model or an alternative forward-looking economic cost model of ILEC networks, possibly with modified inputs that are more appropriate for rural areas;

(2) developing forward-looking cost estimates by taking data on ILECs' existing plant accounts and applying adjustments or modifications to develop the forward-looking costs today of constructing a network that reflects the routing and topography of an incumbent carrier's existing facilities; and/or

(3) comparing ILEC forward-looking estimates with cost estimates generated from a *wireless*-specific model (or models reflecting other technologies, such as cable, satellite, and/or VOIP) to determine the least-cost facilities-based technology to serve a given area.

1. *Adopt Existing Forward-Looking Cost Models to Rural ILECs*. Over the past eight years, the Commission and parties have invested a great deal of effort into developing "bottom-up" models to estimate the forward-looking economic costs of replicating ILEC networks, for purposes of both pricing unbundled network elements and setting universal service support levels. The Synthesis Model currently used to develop support levels in non-rural ILEC areas is one product of those efforts. One option for determining the forward-looking economic costs of universal service in high-cost rural areas would be to refine the Synthesis Model in a manner that would make it better suited for rural areas.

Although some have criticized the application of Synthesis Model to areas served by rural ILECs, the criticism has focused primarily on the alleged inappropriateness of the model

inputs used. For example, the Rural Task Force issued a White Paper in September 2000 that criticized the application of the Synthesis Model to rural ILEC areas in part because it used incorrect study area boundaries and generated incorrect line counts. An obvious solution would be to develop accurate input data. Those issues certainly can be addressed and the problems can be solved.

2. *Modeling the Forward-Looking Costs of Reproducing Existing ILEC Network Facilities*. Some have criticized models such as the Synthesis Model for considering the forward-looking costs of hypothetical efficient networks rather than the forward-looking costs of networks that reflect the routing and topography of ILECs' existing facilities. An alternative forward-looking approach that would essentially estimate today's "reproduction cost" of existing wireline network facilities would take, as a starting point, the costs of the ILECs' existing plant, as reflected in the booked cost reported in its accounting systems (*i.e.*, USOA accounts). Next, adjustment factors (such as the Telecommunications Plant Index ("TPI") factors used by some state commissions in TELRIC proceedings) would be applied to the plant accounts to update the booked costs to reflect intervening cost trends. Thus, if a digital carrier system today costs 20% less than it did when installed five years ago, the cost recorded on the carrier's books would be adjusted to reflect today's lower price. In effect, the existing numbers (and miles) of loops would be multiplied by today's per-unit cost of copper and fiber transmission facilities. Similar analyses would be applied to other ILEC network facilities.

A different analysis would be needed to estimate forward-looking operating expenses and corporate overhead costs. For those factors, a benchmarking analysis could be used to develop the "best in class" companies for each category of ILECs. To facilitate this comparative analysis, ILECs should be grouped into appropriate sets of comparable "peer

groups" based upon rankings for cost drivers such as population density, total line counts, and climate and terrain factors. For each "peer group" of carriers, a threshold would be set for "best in class" performance – say, for example, the lowest-cost 25% of carriers in the particular peer group. That threshold would be used to determine particular "best in class" benchmark levels of operating expense and corporate overheads (both expressed as percentages of the underlying capital costs), and those benchmark levels would be applied to all companies in the peer group to derive forward-looking estimates for operating expenses and corporate overheads.

A method like this might be simpler to implement in practice than a full forward-looking cost model approach (*e.g.*, a reworking of the Synthesis Model to apply to rural ILECs); could avoid the controversy over whether the Synthesis Model and similar bottom-up cost models are too "hypothetical," since it would not require any network modeling algorithms; and could avoid the "black box" criticisms levied at many bottom-up cost models, since it could be implemented readily in spreadsheet form and with full transparency of its formulas and inputs.

3. *Forward-Looking Costs of Wireless and Other Technologies*. Over the long term, regardless of which forward-looking methodology is chosen, the forward-looking approach for purposes of determining high-cost support amounts should be calculated, for *all* carriers, based upon the *lesser* of the forward-looking cost of ILEC network technology or the forward-looking cost of wireless network technology (or other commercially available and viable technologies). The Commission's costing analysis efforts in the context of universal service thus should not be limited to ILEC network costs. In some geographic areas, wireless networks may incur lower forward-looking costs to provide basic universal service -- although in other areas, wireline may be the least-cost technology. Critically, however, the output of such a wireless cost model should be used *not* only for those ETCs that use wireless technology, but, in combination

with the wireline model, for *all* ETCs, including incumbent wireline carriers. All ETCs – incumbents and competitive carriers – should receive funding based upon the forward-looking cost of the least-cost technology in any given geographic area. Other facilities-based network technologies, such as cable and certain types of VOIP, may also need to be considered.

C. Regardless of how the Commission determines costs, how should the Commission calculate support (*e.g.*, study area or statewide average costs)?

Once the Commission has an analytical methodology in place to determine forward-looking costs for each specified geographic area, the next step is to establish the rules for deriving support amounts. One possible approach would be to replace all the existing high-cost funds with two newly defined funds:

> "Geographic Unit Cost Support Fund" -- targeted based on the difference between the forward-looking cost of service in a particular geographic area and the national cost benchmark, multiplied by a percentage representing the federal share of responsibility; and

> "Rebalancing Assistance Support Fund" -- a relatively small federal fund designed to assist certain states that have statewide average forward-looking costs significantly greater than the national average (like today's High Cost Model-based support fund).

The "Geographic Unit Cost Support Fund" would be based upon a simple comparison of the cost of service in each discrete area – such as a wire center, exchange, or competitively neutral unit such as a county or census block group – with a national benchmark (such as the $31 benchmark currently used in determining support for non-rural carriers). The "Rebalancing Assistance Support Fund" (like the Model-Based Fund today) would be designed to provide funding to the highest-cost states that have the least ability to generate needed intrastate funding based on the divergence between the statewide average cost and the national average, while at the same time ensuring that the most rural areas are eligible for federal universal service funding.

The new formula for computing support amounts should not include provisions that cap support at the lesser of embedded or forward-looking costs. Such a restriction would unfairly preclude some carriers in high-cost areas from receiving more funding under a forward-looking system than under the current rules, and therefore would retain a vestige of the present, non-unified system. However, the overall size of the high-cost fund would be substantially smaller under a forward-looking system that narrowly targets support to the consumers in highest-cost areas who need it most. To ensure that the fund does not grow excessively in the future, fund growth caps could be incorporated into the methodologies used to determine amounts of support based on forward-looking costs.

In tandem with establishing a new "unified" high-cost universal service mechanism, the Commission should act to eliminate the remaining implicit subsidies in the rural ILECs' excessive interstate and intrastate access rates – possibly, although not necessarily, in tandem with generic reform of intercarrier compensation. To the extent such rate increases are cost-justified, it would be reasonable to consider permitting rural ILECs to recover some of the foregone access revenues through increased interstate Subscriber Line Charges. Importantly, however, the Commission should not act as though it has an obligation to "make the ILECs whole" – *i.e.*, there is no need to ensure that every dollar of foregone access charges is recovered through SLC increases or universal service funding. No such obligation exists, particularly if the rate-of-return regulatory paradigm is discarded. Also, the Commission should give state commissions enforceable "inducements" to eliminate implicit subsidies from intrastate rates, such as by reducing the universal service support disbursed to ILECs whose basic residential rates fail to recover at least a minimal amount of revenue corresponding to an "affordable" rate under the statute.

Finally, it would be appropriate to adopt transition mechanisms to gradually phase in the implementation of a new forward-looking cost-based universal service system. That transition could be longer for the smallest rural ILECs and competitive ETCs in their areas, and "safety valves" should be built in to account for particularly difficult circumstances. In addition, the Commission should adopt a number of short-term modifications to the funding rules, beginning with the Joint Board's proposal to impose a cap on per-line funding in rural study areas with competition. Finally, the Joint Board and the Commission should consider several other short-term measures to control fund growth, such as the following:

- Cap the overall size of the high-cost fund to grow in proportion to the size of the interstate telecommunications market.
- Cap total high-cost support in a study area upon competitive ETC entry, and allocate the support among ETCs based on market share.
- For the sole purpose of computing embedded costs under the rate of return system, require holding companies to combine all "study areas" in each state.
- Revise the local switching support mechanism to reflect economies of scale that can be achieved by carriers with fewer than 50,000 lines.
- Impose further restrictions on rural ILECs' ability to recover general overheads or "corporate operations expenses" through High-Cost Loop Support.

D. Should the Commission continue to use the statutory definition of "rural telephone company" to determine which carriers are rural carriers for purposes of universal service support?

No. The definition of who and what is considered "rural" for universal service purposes should be based upon the characteristics of particular *geographic areas* – not upon the size, type, or other characteristics of individual carriers (or features such as study area size or holding company size). For example, carriers of any size or type could be deemed rural when they serve geographic areas with a specified population density (*e.g.*, 15 persons per square mile or fewer), but not when they serve geographic areas with higher population densities. In other

words, the relative cost characteristics of the area served, driven by factors such as the density of customer locations, rather than the lineage of the company or the number of lines served, should be used to determine whether support should be paid.

A definition of "rural" based upon geographic characteristics, rather than the characteristics of individual carriers, would facilitate adoption of a "unified" high-cost support system, in which all carriers – whether large or small ILECs, CLECs, or wireless ETCs – would receive funding based upon the same formulas when they serve "rural" areas. (Under this approach, of course, many carriers are likely to be both "rural" and "non-rural" when they serve different geographic areas.) Such an approach would eliminate the differences that exist today between the disparate funding systems for so-called "rural" and "non-rural" carriers, and would also eliminate the pecuniary financial gains available to larger ILECs from divesting their smallest rural exchanges. It also would make it unnecessary to maintain rules like 47 C.F.R. § 54.305, which precludes purchasers of exchanges from non-rural ILECs from receiving "rural" support for those wire centers, since support would be based on geography, not the identity of a carrier.

PANEL 2.

A. *Key Issues*: What methodology should the Commission use to calculate the basis of support for eligible telecommunications carriers? Should a competitor receive support based on the incumbent carrier's costs or its own costs?

A separate system for funding CETCs would disserve the public interest. All ETCs serving a given geographic area – CETCs and ILECs alike – should receive support based upon the forward-looking costs of the least-cost technology to provide the service defined as "supported universal service" to the area. By contrast, creating a separate system for funding CETCs would flunk the criteria of: (1) effectively controlling fund growth; (2) compliance with the law; and (3) competitive neutrality (i.e., neither artificially promoting nor artificially restricting competition in rural areas). Instead of focusing on carriers' desire to recover revenue requirements, the Joint Board and the Commission should focus on addressing the needs of rural consumers for affordable services that are comparable to those available in urban areas.

1. *Controlling Fund Growth*. First, adjusting CETC funding formulas is a misguided way to control the growth of universal service funding, and, in fact, could very well lead to *increased* universal service support. Today, a CETC receives the per-line equivalent of the support received by the ILEC in the same service area. In most areas, the per-line equivalent universal service support is less than $20.00 per line. So, even if a CETC invested millions of dollars to provide service in a high-cost area, it is limited to $20.00 per customer served, whereas if the CETC's costs were used to determine support levels, it could be eligible for substantially greater universal service support – in many cases, amounting to $50.00 or more per line. This is especially true given that CETCs are entering the universal service market with limited market share and their costs would initially be spread out over a limited number of customers. Also, as I

mentioned a few minutes ago, *CETC funding is not the main cause of fund growth*. Rather, recently released data confirm that dramatic increases in funding to *ILECs* are the principal cause of fund growth.

2. *Portability is Required by Law*. It is beyond dispute that the law, as consistently interpreted by the Commission and upheld by the courts, requires funding portability – *i.e.*, a system in which the same amount of support per line or customer connection be available regardless of which carrier provides the service. As the U.S. Court of Appeals for the Fifth Circuit held in the *Alenco* case, "portability is not only consistent with [the statutory principle of] predictability, but also is dictated by the principles of competitive neutrality and the statutory command[.]" 1/ The Commission itself, in the 2000 *Kansas State USF Declaratory Ruling*, stated that "it is difficult to see how [a non-portable funding mechanism] could be considered competitively neutral" because "a mechanism that offers non-portable support may give ILECs a substantial unfair price advantage in competing for customers."

3. *Competitive Neutrality Promotes Economic Efficiency*. Competitive neutrality is valuable not only because the law requires it. As the Joint Board recently recognized, "universal service payments should not distort the development of nascent competitive markets. Universal service support should neither incent nor discourage competitive entry." This is not merely a catchy slogan. In fact, a universal service system that, to the extent possible, avoids interfering with competitive market dynamics tends to maximize economic efficiency.

Only a mechanism that disburses equal amounts of support per customer connection can avoid interfering with competitive dynamics. If one carrier experiences lower costs per line and therefore receives less support per line than a competing carrier, then the

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1/ *Alenco Communications, Inc. v. FCC*, 201 F.3d 608, 622 (5th Cir. 2000) ("*Alenco*").

system effectively would penalize the more efficient carrier – and would give all carriers incentives to operate as inefficiently as possible so as to maximize their costs and their support payments. By contrast, if all eligible carriers in an area receive the same amounts of per-line support (or no support), then each competitor would have natural marketplace incentives to operate as efficiently as possible, and the carrier that is most successful in doing so would be able to exploit the benefits of its efficiency by offering higher-quality services and new technologies, cutting prices for consumers, earning greater margins, or some combination of these benefits. This, of course, is the competitive marketplace's mechanism to give service providers incentives to deliver the highest value to consumers at the lowest price.

4. *Regulators Should Focus Upon Consumers' Needs, Not Carriers' Revenue Requirements*. The Fifth Circuit held that "The purpose of universal service is to benefit the customer, not the carrier. . . . 'Sufficient' funding of the customer's right to adequate telephone service can be achieved regardless of which carrier ultimately receives the subsidy." The purpose of funding is *not* to guarantee carriers' recovery of their embedded-cost-based revenue requirements – nor, contrary to some parties' advocacy, is the fund's purpose to support "networks," whether operated by a single monopolist or multiple competing carriers. To be sure, carriers construct networks, not individual customer lines. But incumbent and competitive ETCs, like all other companies competing in a capitalist economy, should receive revenues *only* to the extent that they manage to persuade consumers to purchase their product. Policymakers must avoid confusing the requirement of sufficient support for universal service within a market in which telephone service providers compete for customers, which federal law mandates, with a guarantee of economic success for all providers or for a selected subset of preferred providers, a

guarantee that the Courts and the Commission have held conflicts with competition and with the Act.

To ensure that the rural universal service mechanism is focused on *consumers* rather than carriers, the Joint Board and the Commission should not grant support to either incumbent or competitive ETCs based on embedded costs or revenue guarantees. Revenue guarantees to ILECs interfere with those carriers' incentives to meet consumers' needs. Similarly, funding CETCs based on their "own" embedded costs, while doing nothing substantive to remedy the current ILEC funding regime, would, in effect, extend the inefficient system of rate-of-return regulation to CETCs. Moreover, such a system also would be utterly impractical to implement, as even USTA has recognized.

B. Should the Commission modify rule 47 C.F.R. § 54.305 (which provides that a carrier that acquires exchanges from an unaffiliated carrier shall receive universal service support for those acquired exchanges at the same per-line support levels)?

As mentioned earlier, if the Joint Board and the Commission utilized a definition of "rural" based on geographic characteristics, rather than the characteristics of individual carriers, then it would be unnecessary to maintain rules like 47 C.F.R. § 54.305, since support would be based on geography, not the identity of a carrier. However, if such changes are not made, then Section 54.305 would continue to serve as a critical bulwark between the costly and inefficient rural ILEC funding system and the more efficient funding system for non-rural ILECs; in such a case, the rule should be retained and should be enforced much more rigorously, with few if any waivers or other exceptions.

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I appreciate the opportunity to speak with you today, and look forward to responding to any questions you may have.

Executive Summary

LOST IN TRANSLATION:

How Rate of Return Regulation Transformed the Universal Service Fund for Consumers into Corporate Welfare for the RLECs

The primary mission of the FCC's "high cost" universal service funding ("USF") system is to ensure that the rates for basic telephone service in the relatively high-cost, rural regions of the U.S. will continue to be affordable by keeping them "reasonably comparable" to the rates prevailing in lower-cost areas of the country. While the intent is clearly to promote the welfare of telephone service *subscribers*, the program's funds are disbursed to the *carriers* providing service in the rural high-cost service territories. In 2003, some $3.3-billion in high-cost USF support was channeled to local exchange carriers ("LECs"), the vast majority of which was paid to Rural incumbent LECs ("ILECs").

The Rural ILECs encompass approximately 1400 separate operating units, including several hundred small, privately held companies as well as the units owned by a few holding companies such as CenturyTel and TDS. Most of the Rural ILECs have been operating under traditional rate base, rate of return regulation ("RORR") for decades. It is generally accepted by economists and regulators who have examined the issue that a firm regulated under an RORR framework faces incentives to increase and/or overstate its costs, and is discouraged from operating efficiently. Because the high-cost USF system is also based on the regulatory accounts of companies under RORR, to the extent that the Rural ILECs are operating inefficiently and/or inflating their costs, the high-cost payments will be unnecessarily high.

In that case, funds that are collected from other industry participants and paid into the high-cost USF system will become "lost in translation:" that is, instead of helping to keep rural telephone rates more affordable and thus benefitting rural consumers, those funds will become diverted to subsidizing the Rural ILECs and thereby institutionalizing their inefficiencies. This Report addresses that prospect, by examining the operating performance of the Rural ILECs and its linkages to both the RORR framework and the cost-based nature of the federal high-cost USF system.

Our overall conclusion is that Rural ILEC inefficiencies are substantial and are draining away enormous amounts of the federal high-cost funds. Thus, the high-cost USF mechanism has devolved from a system designed to ensure affordable rates for consumers to something closer to corporate welfare for the Rural ILECs. Our principal findings in support of this conclusion are as follows:

- We have calculated conservative "best-in-class" benchmarks for Rural ILECs' Corporate Operations expense, using year 2002 data from NECA that spans 90% of the loops supplied by Rural ILECs under rate-of-return regulation. We assumed that the "best-in-class" are the top-performing 25 percent within their size-based group. The total amount of claimed expense above the benchmark level provides a reasonable indication of the degree of inefficiency prevailing in the Rural ILECs' corporate overheads. Out of a total Corporate Operations expense of $1.655-billion, some $545.0-million, or 32.9%, are expenses beyond the benchmark level estimated by the trend line. Thus about one-third of the Rural ILECs' claimed Corporate Operations expenses are being incurred in an inefficient manner. Expressed another way, the Rural ILECs are reporting total corporate overhead expenses that are inflated by nearly fifty percent above the presumably efficient level of $1.11-billion in aggregate.

- The FCC's High Cost Loop ("HCL") support mechanism attempts to limit the impact of inflated Corporate Operations expenses claimed by Rural ILECs, but the expense cap adopted by the FCC is not very effective. The FCC cap excludes only 23% of the corporate overhead costs that exceed the efficient level determined by our benchmarking. Consequently, the FCC cap allows the lion's share, some 77%, of those inefficiently-incurred expenses to enter into the HCL support calculations. While we have not attempted to precisely quantify the impact of those inefficiencies on the HCL payments, it is clear that they will have a significant impact.

- An examination of more detailed operating data for 140 Rural ILECs operating in Ohio, Texas, and Wisconsin confirms that many Rural ILECs are claiming excessively high levels of corporate overheads that may be attributed to inefficiency, waste, or even outright fraud. A review of workforce data for the Texas carriers provides further corroboration by identifying certain Rural ILECs with unusually high numbers of management and executive personnel. A conservative analysis demonstrates that adjusting those corporate overheads to more efficient levels would put many Rural ILECs into an overearnings condition (e.g., in the 20% range for return on rate base). Absent more aggressive exercise of RORR regulation – which regulators have been unable or unwilling to pursue – these inefficiencies are flowing into the federal USF system and resulting in inflated support payments.

- The cost-based nature of the high-cost USF system creates strong disincentives that deter Rural ILECs from consolidating to obtain larger scale operations and thereby reduce their costs. Instead of encouraging efficient consolidations, the funding mechanism skews the disbursement of universal service support disproportionately to the smallest Rural ILECs. Considered in aggregate, Rural ILECs sized between zero and 50,000 lines receive over 75% of the HCL

support payouts, while serving half of the loops. When Local Switching Support ("LSS") funds are factored in, the average per-loop annual payment to the under 50,000 line carriers for LSS and HCL combined is $240 – more than four times greater than the support being paid to carriers sized between 100,000 and 350,000 lines.

- The incentives to inefficiencies inherent within rate of return regulation are compounded by the unwillingness or inability of regulators to scrutinize the RLECs' accounts to the degree necessary to prevent substantial errors or misstatements. A unique brand of rate of return regulation is being applied to RLECs – one with minimal financial reporting and almost no actual regulatory oversight. The lack of oversight encourages and rewards operational inefficiencies in the rural ILECs themselves, and is also an inefficient and ineffective regulatory device for regulators. Federal regulators do not regularly review RLEC earnings, and in those limited cases where it is possible to review RLEC earnings, those reported earnings raise questions of their own. RLEC earnings results reported to the FCC for 2002 range from -13.3% to +23.6%. State regulators, who in some cases have in excess of 25, 50, or more than 100 RLEC study areas within their jurisdictions, have little incentive, and frequently insufficient resources to maintain the necessary level of regulatory oversights.

SCOTT J. BERGS
BIO

Scott began working in the wireless communications industry in 1991 with MobileComm, a BellSouth Company. He also worked for PriCellular, Inc. before going into private practice. Scott joined the law firm of Leonard, Street and Deinard, where he was a member of the firm's Intellectual Property and Information Technology Department. His practice focused in the areas of technology (communications and computer) and intellectual property law. He represented several wireless carriers in a wide variety of matters including: regulatory matters before the FCC and various state Public Utilities Commissions, in transactions and providing advice regarding new products and new distribution channels.

In 2003 Scott joined Midwest Wireless as it Vice President of Legal and Regulatory Affairs. Scott is active in the CTIA, the RCA Government and Regulatory Committee, the Collaborative Initiative of the Minnesota Department of Commerce, the Minnesota Senate and House, the Minnesota Attorney General's office, and the Telecommunications and Information Society Policy Forum at the HHH Institute of Public Affairs to reshape communications regulation, the Board of Directors of the Computer Law Association, the Minnesota Telecom Alliance Wireless Committee, MSBA Communications Law section, the Wisconsin Telephone Association Wireless Council, the Minnesota Telephone Alliance Wireless Committee, the Board of Directors of the Minnesota Wireless Foundation and the Federal Communications Bar Association.

FEDERAL-STATE JOINT BOARD ON UNIVERSAL SERVICE EN BANC HEARING ON HIGH-COST UNIVERSAL SERVICE SUPPORT IN AREAS SERVED BY RURAL CARRIERS

CC Docket No. 96-45

PANEL 2: BASIS OF SUPPORT FOR CETCS AND TRANSFERRED EXCHANGES

COMMENTS OF SCOTT J. BERGS
MIDWEST WIRELESS

PANEL INQUIRY

For this hearing, the members of Panel 2 were asked to address the following:

Panel 2: What methodology should the Commission use to calculate the basis of support for eligible telecommunications carriers? Should a competitor receive support based on the incumbent carrier's costs or its own costs? If the latter, how should those costs be calculated?[1]

For the reasons set forth in these comments, we advocate that an Incumbent Local Exchange Carrier's ("ILEC") support should be based on forward-looking costs and that a competitive eligible telecommunications carrier ("CETC") should continue to receive support based on the ILEC per line support.

INTRODUCTION

Curbing growth in the size of the universal service fund, a major concern for all parties involved, can best be accomplished through examination and reform of the underlying support mechanisms. The starting point for any discussion regarding the appropriate methodology to calculate support for eligible telecommunications carriers must be an understanding and acknowledgment of the twin goals of the 1996 Telecommunications Act ("the Act") – advancement of universal service and promotion of competition in rural areas. Some parties have advocated that the growth in the fund be curbed by paying CETCs based on their own costs. That mechanism would be antithetical to those twin goals.

(1) If a CETCs costs are lower than those of the ILEC, then such a system rewards the least efficient provider by providing them more support and a competitive cost advantage. As a result, the customer is deprived of the benefits of competition; lower prices and new and innovative technologies. The ILEC is not incented to become more efficient because to do so would reduce the amount of support available to the ILEC, reducing its competitive advantage over the CETC. The CETC, while more efficient, will be unable to match the artificial consumer price for ILEC services resulting from the ILEC inefficient subsidy, and therefore will not enter or expand in those high-cost areas. Alternatively, if the CETC sought to level the playing field

[1] The Commission also asked the panel to address whether "the Commission modify rule 54.305 which provides that a carrier that acquires exchanges from an unaffiliated carrier shall receive universal service support for those acquired exchanges at the same per-line support levels)?" These comments do not address that issue.